

REMARKS/ARGUMENTS

Applicant has carefully reviewed and considered the Final Office Action (FOA) mailed on July 2, 2010, and the references cited therewith.

Claims 55, 65, 72, 81, 85, and 87 are amended, claims 1-54, 57-60, 63-64, and 78-80 are canceled, claims 82-84 and 89 are withdrawn, and no claims are added; as a result, claims 55-56, 61-62, 65-77, and 81-89 are now pending in this application.

Examiner's Interview Summary

Applicant and Examiner Severson conducted a telephone interview on September 1, 2010, to discuss the claim language and amendments thereof in light of the references cited in the present FOA. Agreement appeared to be reached that the amended claim language recited in the independent claims of the present response overcomes the teachings of the cited references, pending possible search for additional references. Applicant thanks Examiner Severson for his time and consideration.

§ 102 Rejection of the Claims

Claims 55, 56, 61, 62, 65, 67, 72-77, 81 and 85-88 were rejected under 35 USC § 102(b) as being allegedly anticipated by Hachtman, et al. (U.S. Patent No. 5,645,559). Applicant respectfully traverses the rejection as follows.

The Hachtman reference appears to teach a stent delivery device that includes a sleeve 54 that surrounds an inner tube 26. (Column 4, lines 47-48; Figure 5). The Hachtman reference appears to teach that radiopaque markers 58, 60, 62, and 64 surround sleeve 54. (Column 5, lines 2-3; Figure 5).

The Hachtman reference, however, does not teach that radiopaque markers 58, 60, 62, and 64 comprise at least two sets of markers about sleeve 54, the first set of markers spaced in a first pattern and the second set of markers spaced in a second

pattern that is different than the first pattern. That is, the Hachtman reference does not teach that the markers are spaced in different patterns along sleeve 54. Rather, Figure 5 of the Hachtman reference appears to show that the markers are spaced in one, e.g., the same, pattern along sleeve 54. That is, Figure 5 of the Hachtman reference appears to show that the spacing between each marker is equal.

Hence, Applicant respectfully submits that the Hachtman reference does not teach a stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and one or more members for engaging the stent inner periphery along the stent-underlying portion, wherein the one or more members for engaging the stent inner periphery comprises one or more radial protuberances that protrude from the inner core and lie along the stent-underlying portion of the stabilizer, wherein the one or more radial protuberances comprise at least two sets of rings about the inner core, wherein each set of rings includes at least two rings, each of the at least two rings adjacently positioned, the rings in a first set positioned along a length of the stent-underlying portion extending from the portion's distal end to the portion's proximal end and spaced in a first pattern, and the rings in a second set positioned at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and spaced in a second pattern that is different than the first pattern.

In contrast, Applicant's independent claim 55, as currently amended, presently recites:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end,

the stabilizer comprising a non-inflatable inner core and one or more members for engaging the stent inner periphery along the stent-underlying portion, wherein the one or more members for engaging the stent inner periphery comprises one or more radial protuberances that protrude from the inner core and lie along the stent-underlying portion of the stabilizer, wherein the one or more radial protuberances comprise at least two sets of rings about the inner core, wherein each set of rings includes at least two rings, each of the at least two rings adjacently positioned, the rings in a first set positioned along a length of the stent-underlying portion extending from the portion's distal end to the portion's proximal end and spaced in a first pattern, and the rings in a second set positioned at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and spaced in a second pattern that is different than the first pattern.

Support for the amendment can be found in Applicant's specification as originally filed at, for example, page 13, lines 13-31, and Figures 3C, 3D, and 3E, among other locations.

Similarly, independent claim 65, as currently amended, presently recites:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and at least two sets of rings extending radially outwardly from the inner core for engaging the stent inner periphery along the length of the stent-underlying portion, wherein each set of rings includes at least two rings, each of the at least two rings adjacently positioned, the rings in a first set positioned along a length of the stent-underlying portion extending from the portion's distal end to the portion's proximal end and spaced in a first pattern, and the rings in a second set positioned at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and spaced in a second pattern that is different than the first pattern, and wherein the rings for engaging the stent inner periphery comprises an outer surface of the stabilizer adapted to frictionally engage the stent inner periphery without protruding through interstitial openings in the stent inner periphery when the stent is disposed over the stabilizer in a predeployed condition.

Independent claim 72, as currently amended, presently recites in part:

a stabilizer having a stent-underlying portion adapted to be disposed within the interior space of the stent, the stent-underlying portion having a distal end adapted to be positioned adjacent the distal end of the stent, a proximal end adapted to be positioned adjacent the proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and one or more members, each of the one or more members comprising one or more radial protuberances that protrude from the inner core, wherein the one or more radial protuberances comprise at least two sets of rings about the inner core that engage the stent inner periphery, wherein each set of rings includes at least two rings, each of the at least two rings adjacently positioned, the rings in a first set positioned along a length of the stent-underlying portion extending from the portion's distal end to the portion's proximal end and spaced in a first pattern, and the rings in a second set positioned at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and spaced in a second pattern that is different than the first pattern.

Independent claim 81, as currently amended, presently recites:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and one or more members for engaging the stent inner periphery, wherein the one or more members for engaging the stent inner periphery comprises at least two sets of rings extending radially outwardly from an outer surface of the stabilizer adapted to frictionally engage the stent inner periphery along the stent-underlying portion without protruding through interstitial openings in the stent inner periphery, wherein each set of rings includes at least two rings, each of the at least two rings adjacently positioned, the rings in a first set positioned along a length of the stent-underlying portion extending from the portion's distal end to the portion's proximal end and spaced in a first pattern, and the rings in a second set positioned at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying

portion and spaced in a second pattern that is different than the first pattern.

Independent claim 85, as currently amended, presently recites:

A stabilizer for deployment of a stent in a distal location inside a body lumen from a proximal access location outside the body, the stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of the stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion proximal end to the portion distal end, the stabilizer comprising a non-inflatable inner core having a first diameter adapted to underlie the stent, a proximal shoulder not underlying the stent located adjacent the proximal end of the stent and having a second diameter, and at least one distal protuberance underlying the stent and protruding from the inner core for engaging the stent inner periphery without protruding through interstitial openings in the stent inner periphery when the stent is disposed over the stabilizer in a predeployed condition, wherein the at least one distal protuberance comprises at least two sets of rings about the inner core, wherein each set of rings includes at least two rings, each of the at least two rings adjacently positioned, the rings in a first set positioned along a length of the stent-underlying portion extending from the portion's distal end to the portion's proximal end and spaced in a first pattern, and the rings in a second set positioned at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and spaced in a second pattern that is different than the first pattern.

In additional, independent claim 87, as currently amended, presently recites in part:

a stabilizer having a stent-underlying portion adapted to be disposed within the interior space of the stent, the stent-underlying portion having a distal end adapted to be positioned adjacent the distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion proximal end to the portion distal end, the stabilizer further comprising a non-inflatable inner core having a first diameter underlying the stent, a proximal shoulder not underlying the stent located adjacent the proximal end of the stent and extending to a proximal end of the stabilizer, and having a second diameter greater

than the first diameter, and at least one member underlying the stent and protruding from the inner core and engaging the stent inner periphery without protruding through interstitial openings in the stent inner periphery, wherein the at least one member comprises at least two sets of rings about the inner core, wherein each set of rings includes at least two rings, each of the at least two rings adjacently positioned, the rings in a first set positioned along a length of the stent-underlying portion extending from the portion's distal end to the portion's proximal end and spaced in a first pattern, and the rings in a second set positioned at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and spaced in a second pattern that is different than the first pattern.

As such, Applicant respectfully submits that the Hachtman reference does not teach each and every element and limitation of independent claims 55, 65, 72, 81, 85, and 87, as currently amended. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 102 rejection of independent claims 55, 65, 72, 81, 85, and 87, as currently amended, as well as those claims that depend therefrom.

§ 103 Rejection of the Claims

Claim 66 was rejected under 35 USC § 103(a) as being allegedly unpatentable over Hachtman in view of Ravenscroft, et al. (U.S. Patent No. 5,480,423). Applicant respectfully traverses the rejection as follows.

Claim 66 depends from independent claim 65. For the reasons stated above, Applicant respectfully submits that independent claim 65, as currently amended, is in condition for allowance in light of the deficiencies of the Hachtman reference. From Applicant's review of the Ravenscroft reference, the Ravenscroft reference does not cure the deficiencies of the Hachtman reference. That is, the Hachtman and Ravenscroft references, individually or in combination, do not teach, suggest, or render obvious:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be

positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and at least two sets of rings extending radially outwardly from the inner core for engaging the stent inner periphery along the length of the stent-underlying portion, wherein each set of rings includes at least two rings, each of the at least two rings adjacently positioned, the rings in a first set positioned along a length of the stent-underlying portion extending from the portion's distal end to the portion's proximal end and spaced in a first pattern, and the rings in a second set positioned at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and spaced in a second pattern that is different than the first pattern, and wherein the rings for engaging the stent inner periphery comprises an outer surface of the stabilizer adapted to frictionally engage the stent inner periphery without protruding through interstitial openings in the stent inner periphery when the stent is disposed over the stabilizer in a predeployed condition.

as recited in independent claim 65, as currently amended.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claim 66.

Claims 68-71 were rejected under 35 USC § 103(a) as being allegedly unpatentable over Hachtman. Applicant respectfully traverses the rejection as follows.

Applicant notes that only a single reference has been cited in support of the 103 rejection of claims 68-71. Applicant respectfully submits that the Hachtman reference does not teach, suggest, or render obvious claims 68-71 because each and every element and limitation of claims 68-71 is not explicitly or implicitly taught, unless combined with another reference or the Examiner's personal knowledge. In such case, Applicant respectfully requests that the Examiner provide a specific document or an affidavit to support an obviousness rejection. Nonetheless, in the interest of advancing prosecution of the present claims, Applicant respectfully

submits that the elements and limitations of claims 68-71 can be distinguished from the Hachtman reference for at least the following reasons.

Claims 68-71 depend from independent claim 65. For the reasons stated above, Applicant respectfully submits that independent claim 65, as currently amended, is in condition for allowance in light of the deficiencies of the Hachtman reference. That is, the Hachtman reference does not teach, suggest, or render obvious:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and at least two sets of rings extending radially outwardly from the inner core for engaging the stent inner periphery along the length of the stent-underlying portion, wherein each set of rings includes at least two rings, each of the at least two rings adjacently positioned, the rings in a first set positioned along a length of the stent-underlying portion extending from the portion's distal end to the portion's proximal end and spaced in a first pattern, and the rings in a second set positioned at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and spaced in a second pattern that is different than the first pattern, and wherein the rings for engaging the stent inner periphery comprises an outer surface of the stabilizer adapted to frictionally engage the stent inner periphery without protruding through interstitial openings in the stent inner periphery when the stent is disposed over the stabilizer in a predeployed condition.

as recited in independent claim 65, as currently amended.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 68-71.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's below listed attorney at 612-236-0126 to facilitate prosecution of this matter.

CERTIFICATE UNDER 37 CFR 61.8: The undersigned hereby certifies that this correspondence is being electronically filed with the United States Patent and Trademark Office on this 2nd day of September, 2010.

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